When will the commissioning ceremony occur?

The commissioning is scheduled for the summer of 2012. A location or date has not been identified. When the information concerning the commissioning is available it will be posted be posted.

What is a commissioning ceremony?

Commissioning is the ceremony in which the ship will become a unit of the operating forces of the United States Navy. Commissioning is an elaborate event, and the occasion when the ship "Comes Alive" and becomes a USS ship.

You've explained a commissioning. What about a launching and christening?

Modern shipyards, such as Northrop Grumman Ship Systems, move the LPDs from the ways (the actual construction area ashore) into a floating dry-dock and then launch the ship by submerging the dry-dock without ceremony. Christening, the traditional breaking of the bottle of champagne across the bow, continues as a ceremony

How to refer to the ship?

The ship is LPD-23 or Anchorage or, when commissioned, USS Anchorage.

How are the San Antonio class ships named?

Traditionally, the ships of the LPD 1 and LPD 4 class ships were named for cities named for explorers and historical figures e.g. Raleigh, LaSalle, Austin, etc. For the LPD 17 class, Secretary of the Navy John H. Dalton started a revised tradition, naming the lead ship San Antonio in 1996 after the city in Texas. To date most of the ships have followed this naming pattern with five named for cities - San Antonio, New Orleans, Green Bay, San Diego, and Anchorage; one named for a National Park, Mesa Verde; one named for a state, New York; one named for a city and county, Arlington; and one named for a county in Pennsylvania, Somerset.

The name of New York, Arlington, and Somerset specifically honor the victims and first responders from the tragic events of September 11, 2001.

Who "sponsors" the ship?

Traditionally, the Secretary of the Navy designates women as sponsors for U.S. Navy ships. The sponsor for USS ANCHORAGE is Mrs. Annette Conway, wife of former Marine Corps Commandant General James T. Conway.

What is Keel Laying?

For modern Navy ships, keel laying is the ceremonial milestone signifying the start of ship construction.

What is stepping the Mast?

Stepping the Mast is an ancient tradition where coins are placed under or near the mast when the mast is installed. The coins are intended to bring the ship good luck. The Navy and shipyard continue this tradition today and usually use coins, which add up to the ship's hull number, e.g. 17 cents for LPD 17. The shipyard hosts these events and they are sometimes held in conjunction with the christening ceremony rehearsal. USS ANCHORAGE stepped the mast in xxxxx.

Where will USS ANCHORAGE be home ported?

ANCHORAGE will be home ported in San Diego, CA.

When will the pre-commissioning crew form?

Sailors who will man these ships started receiving their orders and began training about the time of christening. All of the crew will have reported for duty when Northrop Grumman Ship Systems delivers the ship to the Navy and then will move aboard. While the ship's complement includes three permanently assigned Marines, a Combat Cargo Officer and two assistants, the full complement of Marines will not embark until the ship begins preparations for deployment, well after commissioning.

Who designs the ship's crest?

The first Commanding Officer designs the ship's crest based upon research into the namesake and with the assistance of the U.S. Army Institute of Heraldry.

What does the acronym LPD mean? What does Dock mean in amphibious transport dock?

LPD stands for Landing Platform Dock although the ship is usually referred to as an amphibious transport dock. However, in the 21st Century, LPD 17s will perform more than amphibious missions, and serve as more than a transport for the landing forces.

Amphibious transport docks, both the 15 LPDs in previous ship classes and the San Antonio class, each will have a well deck in the after part of the ship. The ship will ballast her stern to completely flood the well deck for the launching or recovering conventional landing craft and partially flood the well deck for Expeditionary Fighting Vehicles. These will egress or enter when the stern gate is opened. The ship then deballasts and operates with a dry well. The well deck is not flooded for LCAC, air cushion landing craft operations. Well deck operations may be conducted pier side, at anchor, or at sea while moving through the water.

Who is building LPD 23 and where?

Northrop Grumman Ship Systems facilities on the Gulf Coast are building this class of ships. LPD 23 is currently under construction in Avondale, LA. USS San Antonio started construction in Avondale and was completed in Pascagoula. Major defense contractors Raytheon Corporation, Intergraph Corporation and over 300 subcontractors and vendors located in 38 states are also part of this effort.

What is the mission of the LPDs?

The ships' mission is to embark, transport, and land elements of a Marine Landing Force in an assault by helicopter or tilt rotor aircraft; conventional or air cushion landing craft; and amphibious or Expeditionary Fighting Vehicles.

In light of this mission, what considerations went into the design of this class of ships?

The ship is designed to support 21st-century Expeditionary Warfighters' requirements. Specifically, the ships will support continuous operations in the challenging environment of littoral crises and conflicts. Operational concepts, such as the Navy's Forward… From the Sea, the Marine Corps' Operational Maneuver from the Sea, and its tactical implementation plan, Ship-to-Objective Maneuver, helped define the required operational capabilities of the ship. The LPDs will also be a viable asset within the vision of Navy Sea power 21.

What are the dimensions of the ship?

Length - 684 feet (208.5 meters); Beam - 105 feet (31.9 meters); Displacement - ~24,900 long tons.

What is the size of the ship's crew?

Ship's crew size will include 360 Sailors and three permanently assigned Marines.

How many troops can one of these ships accommodate?

Troops include Marines as well as Naval Support Element personnel (Beach masters, landing craft personnel, SEALs, etc.) The ship will have a berthing capacity to accommodate 699 troops (enlisted, senior non-commissioned officers, and officers) on a "normal" deployment, with a surge capacity to accommodate as many as 800 troops, (101 more), if needed.

How many female Sailors and Marines can the LPDs accommodate?

The design fully supports Navy and Marines Corps policies for accommodating women at sea. The design of smaller crew and troop berthing compartments, the plan for identical sanitary facilities (no urinals) and an overall improved quality of life design will benefit both male and female while providing an unparalleled flexibility in accommodating women.

How many air-cushioned landing craft (LCAC) can each ship carry?

Depending upon the mission requirements, the ships can carry up to two LCACs.

What other landing craft are carried on board and how many of each can be carried?

If LCACs are not embarked, each ship can carry one landing craft utility (LCU), four MK eight SEAL Delivery Vehicles or up to 26 Expeditionary Fighting Vehicles/Amphibious Assault Vehicles (14 in main vehicle stowage, 12 in the well deck). A routine lead-out might be two LCACs, 14 EFVs, two SEAL Mission RHIBs and associated Marine equipment and vehicles.

What type of propulsion do these ships use?

LPD 23 is equipped with diesel engines for main propulsion. Specifically, there are four 16-cylinder Colt-Pielstick diesel engines sequentially turbocharged to generate up to 10,400 horsepower each. These engines drive two shafts with controllable pitch propellers, which provide enhanced acceleration and maneuverability. These engines are improved versions of the engines currently employed in the LSD 41/49 class.

What are the onboard medical capabilities of the class?

Each ship will have two medical and two dental operating rooms as well as a 24-bed ward that includes ICU facilities.

What contributions does the ship bring in terms of amphibious lift capability?

The ship will have approximately 24,000 square feet (2,230 meters2) of vehicle storage space and approximately 34,000 cubic feet of cargo/ammunition storage.

What are the air support capabilities?

The flight deck can support the Marine Corps' largest helicopter, the CH-53E. The ship's design also allows support of smaller helicopters such as the CH-46, AH-1H or UH-1H aircraft. The ship may also launch and recover the MV-22 Osprey tilt-rotor aircraft. Depending upon the mix of aircraft, the LPD 17 San Antonio class has the capability to temporarily support as many as six aircraft cross-decked from another ship or routinely launch or recover as many as four aircraft simultaneously.

Will the ship have permanently embarked aircraft?

No, LPD 23 will not have aircraft permanently assigned. They may embark or cross-deck aircraft and/or personnel from the large-deck amphibious ships within Expeditionary Strike Group, but only temporarily to support specific mission requirements. However, the ships do have permanently assigned personnel in their Air Department for handling and fueling aircraft.

What systems does the ship have for self-defense?

For air defense LPD 23 has the Mk 31 Mod 1 Guided Missile Weapons System with its RIM 116 Rolling Airframe Missile (RAM), which is used to engage anti-ship missiles or high-speed aircraft. The ship has two RAM launchers.

For defense against surface targets, the ships posses the naval version of the Marine Corps' Expeditionary Fighting Vehicles' (EFV) 30mm gun. It provides greater accuracy and lethality than the 25mm gun currently found on other ships.

What other systems enhance self-defense?

SLQ-32 (V) 2 Electronic Warfare (EW) System, Super RBOC, MK 53 DLS/Nulka decoy, and SLQ-25A (Nixie) towed anti-torpedo systems

How many ships of the LPD 17 San Antonio class will be built?

The final number of ships built will be based upon national security and Navy needs.

How much will the ship cost to build?

The average cost of an LPD 17 San Antonio class ship is expected to be $1.3 B.

What is the projected service life LPD-23?

The ship is designed for a 40-year service life.

Amphibious ships normally conduct operations near land. What features in design enhance survivability in such an environment?

Since these amphibious transport docks will operate in the littoral, a potentially more dangerous area than the open ocean, self-defense and survivability were crucial elements that influenced ship design:

* The LPD 17 San Antonio Class' distinctive profile reduces potential detection through a streamlined design, minimally exposed topside equipment, a boat valley instead of a boat deck, and such technology as the Advanced Enclosed Masts/Sensors (AEM/S) system.

* Other survivability enhancements incorporated into the ship's design include a hardened structure, advanced degaussing to reduce magnetic signature, and optimum separation of redundant systems, where if one part of the ship sustains damage, vital systems are ensured continuity.

* Defense against a chemical-biological-radiation attack calls for a four-zone Collective Protection System with decontamination stations to protect personnel.

* Damage Control (DC) Central is collocated with Engineering Control to provide continuity of damage recovery operations. The ship's design provides for a secondary DC Central, which is located for maximum separation.

* Other damage recovery features include extensive use of fire insulation, wider passageways, a smoke removal system and advanced fire fighting systems.

Are there any significant differences between the other ships of the class and LPD 23?

All the ships of the LPD 17 class will be constructed from the same design. Over the service life of the ships, some ships may receive updates or back fits before others, but the ships of the class will generally be the same with no long-term significant differences.

How did fleet inputs become a factor in the ship's design?

By involving Marine Corps and Navy personnel with recent forward presence experience, the ship's Design Team ensured that the capabilities and layout of spaces would support 21st-Century Expeditionary Warfare requirements. Inputs assisted in everything from the arrangement of the Pilot House and Combat Information Center to improving the berthing spaces and even recommending an appropriate type of pots and pans washer.

What is the SWAN?

The San Antonio class is the first class of ship equipped with a state-of-the-art fiber-optic Shipboard Wide Area Network (SWAN). Its design provides computer and network access linking every manned space on the ship, to include troop/crew berthing. The SWAN's design also allows for future growth over the life of the ship as technology advances. Over 760 SWAN drops (i.e. access points) will support computer workstations or other uses throughout the ship.

What provisions were made for onboard training?

The ships will have:

* A Training Department - one officer and five enlisted training experts

* The Total Ships Training System (TSTS) to develop lesson plans, conduct training, and document results. Embedded training systems within the TSTS allow on-station watch and damage control training throughout the ship.

* Dedicated training spaces such as the Advanced Electronic Classroom (AEC) and Learning Resource Center (LRC). The AEC has instructor controls, 18 student workstations, its own server, and a large screen display. The LRC is equipped with 14 student carrels and 50 portable laptops.

* Space reserved for Marine Corps' training devices.

How does the LPD 17 San Antonio class enhance the quality of life for the ship's company and embarked troops?

LPD 17 class' design incorporates a variety of improvements to crew and troop comfort in which computer modeling and simulation played a significant role. The assurance that a fully equipped Marine could move through ship passageways to a debarkation station without being impeded is one such example.

Other examples include:

Sit-up Berthing racks, which have room for a Sailor or Marine to sleep comfortably or to sit up in the bunk for reading or writing. The berthing racks also have a portable reading and writing surface, and 40% more storage space than traditional three tiered bunks.

Food service spaces were designed with help from the Fleet, to ensure better-prepared and more nutritious offerings, more efficient means of food preparation, and user-friendly layout of food service spaces. Advanced technology in terms of food storage and preparation is a major enhancement of the consolidated galley that will serve officers, chief petty officer/senior non-commissioned officers, and crew/troops.

Physical Fitness Center to ensure both Sailors and Marines maintain their fitness. This is a 1,100 square foot space with its own sanitary facilities. Fleet personnel provided input for the center's equipment with the assistance of a professional fitness expert.

What revolutionary design attributes or innovations are incorporated into the ships of this class?

Advanced Enclosed Mast / Sensor System: The AEM/S concept totally modified ship appearance topside and improves the war-fighting capability through reduced radar cross-section signature, improved sensor performance, and greatly reduced maintenance of the mast and antennas. Antennas are located inside each of two masts, which use a hybrid, frequency selective material to allow communications, and radar signals to pass through, but exclude electronic noise and weather.

All Electric Auxiliaries: All previous amphibious ships have had auxiliary boilers to produce steam for heating, hot water, and cooking. LPD 23 will have electric heating, electric water heaters and electric combination ovens in the galley.

Berthing Spaces: Identical for embarked troops and ship's crew. In the LPDs, the berthing spaces will have similar sit-up berths, integral sanitary (head) facilities, and adjacent lounges. Chief petty officers and senior non-commissioned officers will live in modular six person bunkrooms with integrated sanitary facilities. Moreover, males and females will have equal facilities. For the first time personnel will have room to sit up in their bunks and to read or write on portable surfaces. Each berth will have individual ventilation and 40% more storage.

Boat Valley and all RHIBs: LPD 23 will carry one 11-meter and two 7-meter rigid-hull inflatable boats (RHIBs). These boats are considerably lighter than traditional craft, thus reducing the ship's weight, improving acquisition costs, and decreasing boat maintenance requirements. Two of these boats are stored in a boat valley while a second 7-meter RHIB, which serves as the ship's rescue boat, is hidden on the starboard side. The boat valley can also store two mission-RHIBs used by embarked Small Boat Units or Marine Reconnaissance Forces.

Consolidated Galleys: LPD 23 will use a single, modern galley to feed officers in the wardroom; chief petty officers and senior non-commissioned officers in the CPO/SCNO mess; and embarked troops and ship's crew in the enlisted dining facility. Over 1200 Sailors and Marines can be well-fed three plus times per day.

Enhanced Survivability: The LPD 17 class is the first ship class to combine so many survivability and emergency response systems. These include the Water Mist System - Protection for the Main Machinery and Auxiliary Machinery Rooms; HFP (Heptafluoropropane) which replaces HALON, a

chlorofluorocarbon, for aviation fuel (JP-5) space protection; Aqueous Film Forming Foam from portable extinguishers; Ship Service Diesel Generator Enclosure Sprinkling; Sea Water Sprinkling for berthing, storerooms, etc., a Smoke Removal System, and a Collective Protective System for living spaces

Environmental Friendly: LPD 23 will have a minimal and manageable environmental impact. The pollution mitigation devices installed on LPD 23 are state-of-the-art for warships and meet the requirements of regulatory agencies and present day law. The design has space and weight margins in place to accommodate back fit of future environmentally required systems. The ship has an oil pollution control system capable of processing bilge water to meet current Federal requirements with the capability of returning water for further processing if output requirements are exceeded, and its air conditioning, refrigeration, and fire suppression systems are free of chlorofluorocarbons - a Navy first.

Food Service: LPD 23 will be able to provide traditional food service and pre-prepared food to meet the needs of Sailors and Marines. The 'combi' oven steams, dry roasts, or can combine both functions. The ovens can steam vegetables or roast any type of meat, even cook crispy French fries.

Knuckeboom Crane: LPD 23's boat and cargo crane will be a "reduced radar cross section signature" hydraulic crane. The 22,000 lb. rated, 65 ft. knuckleboom crane will be able to move Rigid Hull Inflatable Boats from the boat valley to the waterline, recover the boats, or load cargo pier side or at sea. The newly designed crane utilizes a positive control "Derrick Head" capturing device that affords safe boat operations through Sea State 3 conditions (3-4 feet seas).

Metric Ship: LPD 23 is a hybrid metric ship. LPD 17 class ships were the first major Navy ship class to be so constructed and, wherever possible, LPD 23 was designed using the metric system for linear dimensions and other parameters. Most machinery parameters remain in English foot-pound measures.

MV-22/EFV Compatible: The LPD 17 class ships designed for compatibility with the MV-22 Osprey and the Expeditionary Fighting Vehicle. The MV-22 is a joint service, multi-mission aircraft with vertical take-off and landing (VTOL) capability. The MV-22 flies twice as fast at a greater distance and carries a heavier payload than the helicopters it replaces. It can operate as a helicopter when taking off and landing vertically and once airborne becomes a high-speed, fuel-efficient turboprop airplane. The wing rotates for compact storage aboard ship. Each ship will be able to support four aircraft on its flight deck. The Expeditionary Fighting Vehicle (EFV) will replace the Amphibious Assault Vehicle (AAV) as the primary combat vehicle for transporting troops on land and from ship to shore. The EFV has the capability to maneuver, combat loaded with a Marine rifle squad, at 20-25 knots in the water and maneuver cross country with agility and mobility equal or greater than that of the M1 Main Battle Tank (MBT). LPDs can carry at least 14 EFVs along with air cushion landing craft inside its well deck and vehicle stowage areas.

Reverse Osmosis Water Generating Plant: Navy ships have traditionally used distillation for converting seawater into potable water - the salt water was flashed and the condensate collected. LPD 23 will use a Reverse Osmosis system, also known as hyper filtration, which will remove particles as small as ions from the seawater through a semi-permeable membrane. It will purify water and remove salts and other impurities in order to obtain water for drinking, vehicle and aircraft wash downs and other shipboard uses. Equally important, this system will produce 72,000 gallons of potable water daily.

Shipboard Wide Area Network: The shipboard wide area network (SWAN) developed for the LPD 17 class is a fiber-optic ship wide large area computer network. The SWAN will support everything from combat systems to ship control systems to command and control nodes to an integrated training system. This network provides e-mail and Internet access capability through over 760 drops throughout the ship.

Stabilized 30mm Gun: For close in small boat threats, LPDs will rely upon two Mk 46 Mod 1, 30mm guns for defense. Against such threats, ships currently use machine guns or manned, visually sighted 25mm chain guns. In the LPDs these new types of guns will have longer range, be more accurate, be capable of being fired remotely and use close loop fire control, forward looking infrared, or laser range for targeting surface threats. The guns will be stabilized to improve accuracy at sea and employ the same kind of training, maintenance, and ammunition as the Marines' 30mm gun in EFVs.